UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,985	09/26/2001	Andrew Fertlitsch	SLA1004	2966

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	09/964,985	FERTLITSCH ET AL.
	Examiner	Art Unit	
	Benjamin O. Dulaney	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR·THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
-. Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _25 April 2007_.
2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-24_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-24_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments, filed 4/25/07, with respect to the rejection(s) of claim(s) 1-

24 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore,

the rejection has been withdrawn. However, upon further consideration, a new

ground(s) of rejection is made in view of U.S. patent 7,148,980 by Tominaga.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1)   Claims 1-4, 7 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by

U.S. patent 7,148,980 by Tominaga.

2)   Regarding claim 1, Tominaga teaches a method for distributing a print task

among a plurality of printing devices, said method comprising: receiving a print task at a

print system component (Column 3, lines 39-42); receiving user input comprising a

cluster printing selection at said print system component, wherein said selection

identifies specific printing devices and communicates a specific quantity of printing

devices (Column 13, lines 8-24); combining said print task with said cluster printing selection thereby creating driver-dependent data (Column 13, lines 36-41); transmitting said driver-dependent data to a printer driver (Column 13, lines 29-59); creating spool data from said driver-dependent data (Column 15, line 30); determining portions of said spool data to be distributed to each of said specific printing devices (Column 15, lines 29-54); distributing said portions of said spool data among said specific printing devices with said print system component (Column 15, lines 29-54), said distributing comprising concurrent parallel playback of said portions of said spool data, to each of said specific printing devices (Column 15, lines 57-61).

3)   Regarding claim 2, Tominaga teaches the method of claim 1 wherein said determining comprises job splitting (Column 16, lines 9-14).

4)   Regarding claim 3, Tominaga teaches the method of claim 1 wherein said determining comprises copy splitting (Column 16, lines 15-18).

5)   Regarding claim 4, Tominaga teaches the method of claim 1 further comprising determining printer capability data and prompting a user for said cluster printing selection, wherein said prompting only allows selection of printing devices with capabilities that match requirements of said print task (Column 13, lines 15-19).

6)   Regarding claim 7, Tominaga teaches the method of claim 1 further comprising querying at least one printing device to determine at least one of its capabilities (Column 14, lines 54-61).

7)   Regarding claim 8, Tominaga teaches the method of claim 1 further comprising

querying at least one printing device to determine its availability (Column 14, lines 54-

61).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8)   Claims 5, 6, 9-13, 15, 16, 18, 19, 23 and 24 are rejected under 35 U.S.C. 103(a)

as being unpatentable over U.S. patent 7,148,980 by Tominaga, and further in view of

U.S. Patent 5,287,194 by Lobiondo.

9)   Regarding claim 5, Tominaga does not teach the method of claim 4 wherein said

printer capability data comprises a rate at which said printing devices prints pages.

Lobiondo teaches the method of claim 4 wherein said printer capability data

comprises a rate at which said printing devices prints pages (column 3, line 68 - column

4, line 3).

Tominaga and Lobiondo are combinable because they are both from the

distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to combine Tominaga and Lobiondo to add determining a rate of

printing speed. The motivation for doing so would have been to provide "optimum

scheduling" (Column 2, line 41). Therefore it would have been obvious to combine

Tominaga with Lobiondo to obtain the invention as specified by claim 5.

10)   Regarding claim 6, Tominaga does not teach the method of claim 1 wherein said

determining comprises dividing said print task among said specific printing devices

according to the speed of each of said specific printing devices.

Lobiondo teaches the method of claim 1 wherein said determining comprises

dividing said print task among said specific printing devices according to the speed of

each of said specific printing devices (column 4, lines 52-54).

Tominaga and Lobiondo are combinable because they are both from the

distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to combine Tominaga and Lobiondo to add determining a rate of

printing speed. The motivation for doing so would have been to provide "optimum

scheduling" (Column 2, line 41). Therefore it would have been obvious to combine

Tominaga with Lobiondo to obtain the invention as specified by claim 6.

11)   Regarding claim 9, Tominaga does not teach the method of claim 1 wherein said

determining comprises dividing said print task, when said print task comprises multiple

copies of a print job, into sets of copies of said print job, each of said sets comprising a

number of copies substantially proportional to the number of pages per minute (PPM)

each of said specific printing devices printer can print.

Lobiondo teaches the method of claim 1 wherein said determining comprises

dividing said print task, when said print task comprises multiple copies of a print job, into

sets of copies of said print job, each of said sets comprising a number of copies substantially proportional to the number of pages per minute (PPM) each of said specific printing devices can print (column 4, lines 58-64; column 5, lines 45-62).

Tominaga and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Tominaga and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide "optimum scheduling" (Column 2, line 41). Therefore it would have been obvious to combine Tominaga with Lobiondo to obtain the invention as specified by claim 9.

12)   Regarding claim 10, Tominaga does not teach the method of claim 1 wherein said determining comprises dividing said print task, when said print task comprises multiple and distinct print jobs, into sets of distinct print jobs, each of said sets comprising a number of pages substantially proportional to the number of pages per minute (PPM) each of said specific printing devices can print.

Lobiondo teaches teach the method of claim 1 wherein said determining comprises dividing said print task, when said print task comprises multiple and distinct print jobs, into sets of distinct print jobs, each of said sets comprising a number of pages substantially proportional to the number of pages per minute (PPM) each of said specific printing devices can print (column 4, lines 58-64; column 5, lines 9-12).

Tominaga and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Tominaga and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide "optimum scheduling" (Column 2, line 41). Therefore it would have been obvious to combine Tominaga with Lobiondo to obtain the invention as specified by claim 10.

13)   Regarding claim 11, Tominaga teaches a method for distributing a print task among a plurality of printing devices, said method comprising: receiving a print task at a print system component (Column 3, lines 39-42); receiving user input comprising a cluster printing selection at said print system component, wherein said selection identifies specific printing devices and communicates a specific quantity of printing devices (Column 13, lines 8-24); combining said print task with said cluster printing selection thereby creating driver-dependent data (Column 13, lines 36-41); transmitting said driver-dependent data to a printer driver (Column 13, lines 29-59); creating spool data from said driver-dependent data (Column 15, line 30); determining portions of said spool data to be distributed to each of said specific printing devices (Column 15, lines 29-54); despooling further comprises concurrent parallel playback of spool data to print drivers corresponding to each of said specific printing devices (Column 15, lines 57-61).

Tominaga does not specifically teach determining the output capacity of said specific printing devices; and despooling said spool data in accordance with said cluster printing selection wherein said despooling comprises distribution of said print task to said specific printing devices in substantial proportion to each of said specific printing device's output capacity.

Lobiondo teaches determining the output capacity of said specific printing devices; and despooling said spool data in accordance with said cluster printing selection wherein said despooling comprises distribution of said print task to said specific printing devices in substantial proportion to each of said specific printing device's output capacity (column 4, lines 58-64; column 5, lines 45-62).

Tominaga and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Tominaga and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide "optimum scheduling" (Column 2, line 41). Therefore it would have been obvious to combine Tominaga with Lobiondo to obtain the invention as specified by claim 11.

14) Regarding claim 12, Tominaga does not teach the method of claim 11 wherein said determining the output capacity comprises querying a local printer through a system bus.

Lobiondo teaches the method of claim 11 wherein said determining the output capacity comprises querying a local printer through a system bus (column 4, lines 16-64).

Tominaga and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Tominaga and Lobiondo to add determining a rate of

printing speed. The motivation for doing so would have been to provide "optimum

scheduling" (Column 2, line 41). Therefore it would have been obvious to combine

Tominaga with Lobiondo to obtain the invention as specified by claim 12.

15)   Regarding claim 13, Tominaga does not teach the method of claim 11 wherein

said determining the output capacity comprises querying a network printer using a

network communications protocol.

Lobiondo teaches the method of claim 11 wherein said determining the output

capacity comprises querying a network printer using a network communications protocol

(column 4, lines 16-64).

Tominaga and Lobiondo are combinable because they are both from the

distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to combine Tominaga and Lobiondo to add determining a rate of

printing speed. The motivation for doing so would have been to provide "optimum

scheduling" (Column 2, line 41). Therefore it would have been obvious to combine

Tominaga with Lobiondo to obtain the invention as specified by claim 13.

16)   Regarding claim 15, Tominaga does not teach the method of claim 11 wherein

said determining the output capacity comprises accessing a printer attribute registry.

Lobiondo teaches the method of claim 11 wherein said determining the output

capacity comprises accessing a printer attribute registry (column 3, line 68 – column 4,

line 3).

Tominaga and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Tominaga and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide "optimum scheduling" (Column 2, line 41). Therefore it would have been obvious to combine Tominaga with Lobiondo to obtain the invention as specified by claim 15.

17) Regarding claim 16, Tominaga teaches the method of claim 11 wherein said print system component comprises a print processor (Figure 12).

18) Regarding claims 18, 23 and 24, Tominaga teaches a method for distributing a print task among a plurality of printing devices, said method comprising: receiving a print task at a print system component (Column 3, lines 39-42); receiving user input comprising a cluster printing selection at said print system component, wherein said selection identifies specific printing devices and communicates a specific quantity of printing devices (Column 13, lines 8-24); combining said print task with said cluster printing selection thereby creating driver-dependent data (Column 13, lines 36-41); transmitting said driver-dependent data to a printer driver (Column 13, lines 29-59); creating spool data from said driver-dependent data (Column 15, line 30); modifying said spool data according to said cluster printing selection (Column 13, lines 8-24); said despooling further comprises concurrent parallel playback of spool data to multiple printer drivers (Column 15, lines 57-61).

Tominaga does not teach determining the output capacity of multiple printing devices comprising said specific printing devices; and de-spooling said spool data in accordance with said cluster printing selection wherein said de-spooling comprises distribution of said print task to said specific printing devices in substantial proportion to each of said specific printing device's output capacity.

Lobiondo teaches determining the output capacity of multiple printing devices comprising said specific printing devices (Column 3, line 64 – Column 4, line 15); and de-spooling said spool data in accordance with said cluster printing selection wherein said de-spooling comprises distribution of said print task to said specific printing devices in substantial proportion to each of said specific printing device's output capacity (Column 4, line 35 – Column 5, line 14).

Tominaga and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Tominaga and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide "optimum scheduling" (Column 2, line 41). Therefore it would have been obvious to combine Tominaga with Lobiondo to obtain the invention as specified by claims 18, 23 and 24.

19)   Regarding claim 19, Tominaga does not teach the method of claim 18 wherein said throughput comprises a printer's speed in PPM.

Lobiondo teaches the method of claim 18 wherein said throughput comprises a printer's speed in PPM (column 4, lines 58-64).

Tominaga and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Tominaga and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide "optimum scheduling" (Column 2, line 41). Therefore it would have been obvious to combine Tominaga with Lobiondo to obtain the invention as specified by claim 19.

20)   Claims 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tominaga (as modified by Lobiondo) as applied to claim 11 above, and further in view of U.S. Patent 6,049,394 by Fukushima.

21)   Regarding claim 14, Tominaga does not teach the method of claim 11 wherein said determining the output capacity comprises querying a printer driver.

Fukushima teaches the method of claim 11 wherein said determining the output capacity comprises querying a printer driver (column 17, lines 1-9).

Tominaga and Fukushima are combinable because they are from the printer-networking field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Tominaga by Fukushima to estimate capabilities. The motivation for doing so would have been to determine "that the printing speed can be followed"(column 17, line 8). Therefore it would have been obvious to combine Tominaga to obtain the invention as specified in claim 14.

22)   Regarding claim 17, Tominaga does not teach the method of claim 11 wherein said determining the output capacity comprises estimating the capability of some of said multiple printing devices.

Fukushima does teach determining the output capacity comprising estimating the capability of some of said plurality of printing devices (column 17, lines 1-9).

Tominaga and Fukushima are combinable because they are from the printer-networking field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Tominaga by Fukushima to estimate capabilities. The motivation for doing so would have been to determine "that the printing speed can be followed"(column 17, line 8). Therefore it would have been obvious to combine Tominaga with Fukushima to obtain the invention as specified in claim 17.

23)   Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tominaga (as modified by Lobiondo) as applied to claim 18 above, and further in view of U.S. Patent 6,665,082 by Takeoka et al.

Tominaga does not teach the method of claim 18 wherein output capacity comprises a determination of a printing device's disk storage capacity.

Takeoka does teach the method of claim 18 wherein output capacity comprises a determination of a printing device's disk storage capacity (Column 3, lines 11-25; Column 9, line 66 – Column 10, line 13).

Takeoka and Tominaga are combinable because they are from the same art of

printer networking.

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to modify Tominaga by Takeoka to determine output capacity

comprising determination of printing storage capacity. The motivation for doing so

would have been to "determine the amount of image data included in a packet" (Column

3, line 18). Therefore it would have been obvious to combine Tominaga and Takeoka to

obtain the invention as specified in claim 20.

24)   Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Tominaga as applied to claim 18 above, and further in view of U.S. Patent

6,891,632 by Schwartz.

25)   Regarding claim 21, Tominaga does not teach the method of claim 18 wherein a

determination of said output capacity comprises an analysis of a printing device's

rasterization pipeline.

Schwartz does teach the method of claim 18 wherein a determination of said

output capacity comprises an analysis of a printing device's rasterization pipeline

(Column 3, lines 3-22; Column 10, lines 1-10).

Schwartz and Tominaga are combinable because they are from the same art of

printing.

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to modify Tominaga by Schwartz to analyze a printing device's

rasterization pipeline. The motivation for doing so would have been to "utilize available resources most effectively" (Column 3, lines 29-30). Therefore it would have been obvious to combine Tominaga with Schwartz to obtain the invention as specified in claim 21.

26)   Regarding claim 22, Tominaga does not teach the method of claim 18 wherein a determination of said output capacity comprises an evaluation of alternative rasterization methods and a selection of the fastest method for a specific print task.

Schwartz does teach the method of claim 18 wherein a determination of said output capacity comprises an evaluation of alternative rasterization methods and a selection of the fastest method for a specific print task (Column 3, lines 3-22; Column 10, lines 1-10; Column 3, lines 29-30).

Schwartz and Tominaga are combinable because they are from the same art of printing.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Tominaga by Schwartz to analyze a printing device's rasterization pipeline. The motivation for doing so would have been to "utilize available resources most effectively" (Column 3, lines 29-30). Therefore it would have been obvious to combine Tominaga with Schwartz to obtain the invention as specified in claim 22.
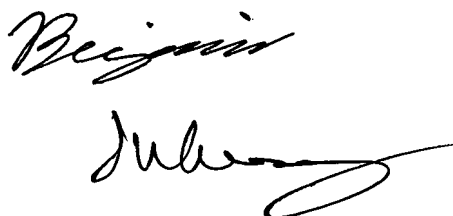
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin O. Dulaney whose telephone number is (571) 272-2874. The examiner can normally be reached on Monday - Friday (9am - 6pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on (571)272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TWYLER LAMB
SUPERVISORY PATENT EXAMINER